WHAT IS CLAIMED IS:

1.   A lid assembly for a chemical vapor deposition (CVD) process chamber, comprising:

5   a moveable lid;

a first linear guide roller and a second linear guide roller, wherein said first linear guide roller is parallel to said second linear guide roller, and wherein both linear guide rollers are connected to said lid, one linear guide roller on each end of a lateral side of the lid, wherein said lateral side is the axis on which the lid rotates;

one or more linear lifting actuators, wherein said linear lifting actuators move the lid up and down along said linear guide rollers; and

a rotation actuator, wherein said rotation actuator is connected to said lateral side of the lid and rotates the lid.

2.   The lid assembly of claim 1, further comprising:
one or more gas springs, wherein said gas springs support the weight of the lid.

3.   The lid assembly of claim 1, wherein said lid can be lowered up to 600 mm by said linear lifting actuators.
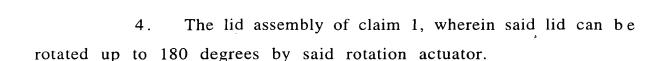
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4.   The lid assembly of claim 1, wherein said lid can be rotated up to 180 degrees by said rotation actuator.

5   5.   A method of opening and closing a process chamber in a chemical vapor deposition (CVD) process, comprising the step of:

applying the lid assembly of claim 1 in chemical vapor deposition, wherein the process chamber is in an open condition
10   when the lid is moved up by the linear lifting actuators to a upper limit, and wherein the process chamber is in a closed condition when the lid is moved down by the linear lifting actuators to a lower limit.

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6.   A method of wet-cleaning a process chamber in a chemical vapor deposition procedure, comprising the steps of:

lifting process chamber lid up by linear lifting actuators, wherein said lid is moved along linear guide rollers, and wherein
20   said linear guide rollers are connected to the axis of the lid;

rotating said lid 180 degrees on the axis by a rotation actuator;

lowering the lid to below the process chamber, thereby breaking the vacuum seal of the process chamber; and
25   wiping down the chamber using chemical cleaners, whereby the process chamber is cleaned.